

UREA

Technical Information



Prill 46-0-0

Product Description

UREA prill is a small diameter, spherical white solid. It is an organic amide molecule containing 46% nitrogen in the form of amine groups. UREA is infinitely soluble in water and is suitable for use as an agricultural and forestry fertilizer as well as for industrial applications which require a high quality nitrogen source. It is not a poison to mammals and birds and is a benign and safe chemical to handle.

Application Recommendations

- UREA prill is used as a slow release fertilizer. It must be decomposed by micro-organisms before it can be assimilated by plants.
- **ALWAYS** exercise caution when using this chemical as fertilizer because it has the highest nitrogen content of any solid.

Transportation, Storage and Handling

- UREA can be purchased in bulk quantities of 25-35 tons as well as in 50 pound and 1 ton bags.
- UREA will decompose into ammonia and carbon dioxide at 275°F. **ALWAYS** wash vessels containing UREA thoroughly before attempting repairs requiring welding.
- UREA must never be allowed to come into contact with nitric acid. The resulting chemical is unstable and dangerous.

Properties

MSDS
#1132

Total Nitrogen Analysis % minimum (guaranteed)	46.0
Water % by weight	0.2
Biuret % by weight	0.4 - 0.5
pH % by weight	8.5 – 9.5
Bulk Density lbs/cubic foot	46
Fertilizer Nutrient Designation	46-0-0

Typical Size Distribution*

Tyler Mesh Analysis	-6+8	-8+10	-10+12	-12+14	-14
Average % Retained	6	55	37	1	1
Cumulative %	6	61	98	99	100

*Tyler Mesh Screen Analysis

Hazardous Shipping Description

- There are no specific DOT restrictions, other than weight, to transport UREA.
- A large spill of UREA should be recovered dry. All attempts should be made to keep it from dissolving into a vegetated drainage. The high nitrogen content (46%) can kill foliage if not diluted. Dissolved UREA can be handled, if necessary, by a municipal water treatment facility.
- Consult MSDS #1132 for more specific and comprehensive information about chemical hazards.

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